

REMARKS

Applicants request favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Initially, Applicants note that an initialed copy of the PTO-1449 form submitted on October 18, 2004, has not yet been returned to Applicants. That PTO-1449 form was submitted to correct errors in a previously filed PTO-1449 form. Applicants request that an initialed copy of the corrected PTO-1449 form be returned with the next issued Official action.

Claims 1, 4, 5, 12, 15, 16, and 23-28 are pending in the present application. Claims 1, 12, 23, 24, 25, 26, 27, and 28 are the independent claims.

By this Amendment, Claims 1, 12, and 23-28 have been amended. Support for these amendments can be found in the original application as filed. Accordingly, no new matter has been added.

Claims 23 and 27 stand rejected under 35.U.S.C. §101 as being directed to non-statutory subject matter. Claims 23 and 27 have been amended along the lines suggested in the Office Action. Favorable reconsideration and withdrawal of the Section 101 rejection are requested.

Claims 1, 5, 12, 16, and 23-28 stand rejected under 35.U.S.C. §103(a) as being anticipated by the combination of U.S. Patent No. 6,266,442 B1 (Laumeyer et al.) and U.S. Patent No. 6,512,857 (Hsu et al.). Claims 4 and 15 stand rejected under 35.U.S.C. §103(a) as being anticipated by the combination of Laumeyer et al. and Hsu et al. and further in view of U.S. Patent No. 6,011,558 (Hsieh et al.). Applicants traverse these rejections.

As recited, for example, in claim 1, an aspect of Applicants' invention features an image processing apparatus for producing a virtual space for walk-through. Among other features, the apparatus includes extraction means that extracts successive frame data whose

position data nearly matches from plural pieces of frame data held by a holding means, deletion means that deletes all frame data of the extracted successive frame data except for one frame data, and associating means that associates the frame data that has not been deleted by the deletion means with a position on a map based on position data of the frame data.

In another aspect of Applicants' invention, independent claim 25 also recites an image processing apparatus for producing a virtual space for walk-through. Among other features, the apparatus includes means for extracting frame data determined to have been captured at the same position from plural pieces of frame data held by holding means, means for deleting frame data overlapping another piece of extracted frame data, and means for storing, after associating with a position on a map, frame data remaining after a deleting process performed by the deletion means.

In still other aspects of Applicants' invention, each of independent claims 12 and 26 recites a method, each of independent claims 23 and 27 recites a computer-executable program, and each of independent claims 24 and 28 recites a storage medium storing a computer-executable program. Claims 12, 23, and 24 recite features generally corresponding to those of claim 1, and claims 26-28 recite features generally corresponding to those of claim 12.

Applicants submit that many of these features are not taught or suggested by Laumeyer et al., Hsu et al., and Hsieh et al., whether those patents are taken alone or in combination.

Laumeyer et al. relates to a method and apparatus for identifying objects depicted in a videostream. In particular, that patent is understood to relate to recognizing and determining the location of road signs by receiving a plurality of image frames each including a single common road sign, and saving to a memory an image frame portion of

the common road sign in one of the plurality of image frames. For example, as discussed beginning at column 18, line 18, a preferred method of Laumeyer et al. includes receiving at least two image frames that each depict at least a single common road sign and which correspond to an identifier tag; applying a fuzzy logic color filter to the at least two image frames; filtering out and saving image frame portions containing each region that contain at least one pre-selected color-pair of a pair-set of approved road sign colors; and saving to a memory location the image frame portion of the at least a single common road sign depicted in one of the at least two image frames.

Hsu et al. relates to a method and apparatus for performing geo-spatial registration, and is understood to teach using imagery and terrain information contained in a geo-spatial database to precisely align geographically calibrated reference imagery with an input image to achieve identification of locations within a scene. When a sensor images a scene containing the geo-spatial database, the system recalls a reference image pertaining to the imaged scene, and the referenced image is aligned with the sensor's images. Other information that is associated with the reference image can also be overlaid upon the sensor imagery.

However, neither Laumeyer et al. nor Hsu et al. is understood to teach or suggest extracting successive frame data whose position data nearly matches from plural pieces of frame data held by a holding means, deleting all frame data of the extracted successive frame data except for one frame data, and associating the frame data that has not been deleted by the deletion means with a position on a map based on position data of the frame data, as recited in independent claims 1, 12, 23, and 24. Those patents also do not teach or suggest extracting frame data, from plural pieces of frame data held by holding means, that is determined to have been captured at the same position, deleting frame data overlapping another piece of extracted frame data, and storing, after associating with a position on a

map, non-deleted frame data, as recited in independent claims 25-28.

The final patent cited in the Office Action, Hsieh et al., fails to remedy the deficiencies of Laumeyer et al. and Hsu et al., noted above. Hsieh et al. relates to an intelligent stitcher for panoramic image-based virtual worlds, and is understood to be cited for teaching only features of dependent claims. Specifically, Hsieh et al. is not understood to teach or suggest extracting successive frame data whose position data nearly matches from plural pieces of frame data held by a holding means, deleting all frame data of the extracted successive frame data except for one frame data, and associating the frame data that has not been deleted by the deletion means with a position on a map based on position data of the frame data, as recited in independent claims 1, 12, 23, and 24. Hsieh et al. also does not teach or suggest extracting frame data, from plural pieces of frame data held by holding means, that is determined to have been captured at the same position, deleting frame data overlapping another piece of extracted frame data, and storing, after associating with a position on a map, non-deleted frame data, as recited in independent claims 25-28.

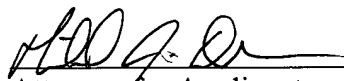
For the foregoing reasons, Applicants submit that independent claims 1, 12, and 23-28 patentably define Applicants' invention over Laumeyer et al., Hsu et al., and Hsieh et al., whether those patents are taken alone or in combination. Favorable reconsideration and withdrawal of the Section 103 rejection of the independent claims are requested.

The remaining claims depend from either claim 1 or claim 12. These dependent claims are submitted to be patentable by virtue of their dependency, and for reciting other patentable features of Applicants' invention. Favorable and independent consideration of the dependent claims are requested.

For the foregoing reasons, Applicants submit that this application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-mentioned Office Action, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our below-listed address.

Respectfully submitted,



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